

Application No. 09/663,793
Reply to Office Action of January 16, 2004

- 21 -

REMARKS

In the outstanding Office Action, the Examiner objects to pages 17, 21 and 24 of the Specification. The amendments herein to the Specification are advanced to address each of the Examiner's objections made to pages 17 and 24 thereof. As for the Examiner's objection to page 21, the Examiner's attention is drawn to lines 7 and following of page 21, which indicate that Table 1 only displays those aspects of the existing neighbouring peer Finite State Machine 5 of the PNNI protocol which are modified by the present invention or which are supplemented by additional functions or procedures for implementing the present invention. In other words, Table 1 of the Specification only denotes changes to the existing PNNI protocol that are reflected by the described embodiment of the invention. As such, there is no conflict with Figure 2 as had been assumed by the Examiner. The Examiner is therefore respectfully requested to reconsider and withdraw his objection to page 21 of the Specification.

The Examiner next required corrected drawings in the application. The enclosed formal drawings are submitted to meet the Examiner's objection in this regard.

Next, the Examiner objected to existing Claims 9, 10, 31 and 32 on the basis of indefiniteness. These claims have each now been amended so as to reflect the alternative form of expression which the Examiner indicated as being acceptable. It is therefore believed that the Examiner's objections in this regard have also been met.

Turning now to the Examiner's objections based on what the Examiner has put forward as prior art, the Examiner's allowance of Claims 44-63 is gratefully acknowledged. Moreover, the Examiner's indication of the allowability of Claims 15-22, 31-36, 41-43, 65-75 and 77-87 if rewritten in independent form is likewise gratefully acknowledged.

Applicant hereby respectfully requests that the Examiner reconsider and withdraw his objections to the remaining and existing claims of this application under 35 U.S.C. 102 and 103. The Examiner has relied upon the primary reference of Rochberger et al.

123081-339652
TDO-RED #8237273 v. 1

Application No. 09/663,793

Reply to Office Action of January 16, 2004

- 22 -

(U.S. patent No. 6,473,408) and its inherent incorporation of the PNNI Specification Version 1.0 as cited by the Examiner. The Examiner contends that this PNNI Specification teaches in its description of the Exchanging state that "as a result of processing Database Summary packets, required PTSEs can be requested". According to the Examiner, this specifies that advertisement of local state information is not withdrawn during topology state information exchange as is the case with the present invention.

The Examiner's interpretation of the PNNI Specification as aforesaid, to the extent inherently incorporated in Rochberger, is respectfully disputed. In actual fact, the existing PNNI Specification clearly specifies that advertisement of local state information is suspended during database synchronization and is resumed only after the database synchronization between the respective neighbouring nodes of a network has successfully been completed. In this regard, the Examiner's attention is drawn to the second complete paragraph on page 17 of the existing PNNI Specification, which reads as follows:

"A link is advertised via PTSE transmissions only after the database synchronization between the respective neighboring nodes has successfully completed. In this way, the link state parameters are distributed to all topology databases in the peer group containing that link. As we shall see in the following section, flooding is the mechanism used for advertising links." (*emphasis added*)

Similarly, the Examiner's attention is further drawn to page 85 of the aforesaid PNNI Specification, wherein in the fourth paragraph of Section 5.7 thereof the following is described:

"Links between lowest-level neighboring peers may only be advertised in PTSEs when the neighboring peer state machine is in Full state. For the case of neighboring lowest-level peers connected by physical links and VPCs, changes into or out of the Full state will cause new instances of one or more of this node's PTSEs to be originated or flushed." (*emphasis added*)

Those skilled in the art will readily understand that the foregoing description very clearly signifies that links between lowest-level neighboring peers are withdrawn whenever a

123081-339652

TDO-RED #8237275 v. I

Application No. 09/663,793

Reply to Office Action of January 16, 2004

- 23 -

further synchronization of topology databases is undertaken. The very same notion is repeated on page 91 of the same PNNI Specification, wherein the description for action Ds4 indicates that "all links to the neighbor must now be advertised in PTSEs" once a synchronization is complete. On the same page in relation to action Ds6, it is indicated that "if there are any PTSEs advertising links to that neighbor, those PTSEs must be modified to remove the links". The later therefore explicitly describes that the local state information in the form of neighboring links is withdrawn from the relevant PTSEs. In stark contrast to this, all of the claims currently being rejected by the Examiner recite the opposite to this teaching, namely that the exchange of topology state information is performed without withdrawal, by the network node under consideration and by each of its immediately adjacent neighbor nodes, of the intermittent advertisement of local state information as it pertains respectively to the network node under consideration and to each said immediately adjacent neighbor node. This is in very clear contrast to the known and adopted teachings of the PNNI Specification Version 1.0.

Lastly, on page 89 of the said PNNI Specification, the description of the "full" state contains the following sentence:

"Links to the neighboring peer can now be advertised in PTSEs."

Thus, those skilled in this art will therefore understand that a distinction is to be drawn under the cited PNNI Specification between the advertisement of local state information and the exchange of topology state information which is performed during database synchronization. While both procedures may be accomplished by the use of PTSEs as pointed out by the Examiner, the PTSEs in the case of the exchange of topology state information under the cited PNNI Specification will have removed therefrom all local state information pertaining to the synchronizing node and all of its immediately neighbouring nodes. Again, this distinction is clearly drawn in each of the explicit language recited in each of the independent claims forming part of the claims to which the Examiner has objected.

123081-339652

TDO-RED #8237275 v. 1

Application No. 09/663,793

Reply to Office Action of January 16, 2004

- 24 -

This distinction is not only clearly drawn in the very operation of the existing PNNI protocol, but is also highlighted throughout the Specification of the present application. First, the current application clearly teaches what is meant by local state information, as that expression is utilized in the existing claims. On the bottom of page 1 of the Specification, beginning at line 32, it is specified that local state information is information which is "locally originated by a particular network node". On page 2, local state information is further described as comprising both local link status information and local nodal state information. In terms of local link status information, the Specification on page 2 and at lines 2 to 6 teaches that this concept includes such attributes as link characteristics, link operational status, port identifiers and remote neighbour information concerning adjacent neighbour nodes, but that these will pertain to a given network node as opposed to a variety of nodes forming part of a network domain. In the case of local nodal state information, the Specification on page 2 and at lines 6 to 9 teaches that this notion comprises such attributes as node identifiers, peer group identifiers, distinguished node election status, distinguish node leadership status and local reachable address information. It is again further specified that these attributes will pertain to a given node when reference is made to local nodal state information.

Having defined what is meant by local state information, the Specification on page 14 and at lines 2 to 7 teaches as follows, consistent with the previously presently extracts taken from the cited PNNI Specification:

"... the current PNNI protocol will call for advertisement of local state information from each of the nodes involved in the synchronization to be removed or withdrawn until such time as the synchronization has taken place. Thus, the failed node will stop advertising its local state information and the nodes which neighbour the failed nodes will likewise stop advertising their respective local state information."

The re-establishment of the advertisement of local state information once synchronization is complete is likewise reflected in the Specification, for instance on page 15 and at lines 9 to 13 thereof:

123081-339652
TDO-RED #8237275 v. 1

Application No. 09/663,793

Reply to Office Action of January 16, 2004

- 25 -

"Once synchronization is completed, local state information is advertised among the failed node and its neighbour nodes within the network topology of network domain 30, whereby each node will advertise its reachability to all other neighbour nodes. For example, in the PNNI protocol, this advertisement takes place by means of a regular process known as flooding."

For all of the foregoing reasons, the Examiner is respectfully invited to reconsider and withdraw the rejections of the claims, all of which have been based upon the teachings of Rochberger as a primary reference and its incorporation of the PNNI Specification Version 1.0.

Agents of Record

Further to a Customer Number Batch Update form dated and mailed April 18, 2004 which included a reference to the captioned application, the undersigned attorney confirms that the contact agent of record, Alfred Macchione, has relocated his practice to the firm of:

McCarthy Tétrault LLP
Customer Service #: 27155
Toronto Dominion Bank Tower
P.O. Box 48, Suite 4700
Toronto, Ontario
M5K 1E6 Canada

Applicant has consented to having contact agent retain responsibility as agent of record. Undersigned attorney advises that in total the following agents of record are also now associated with the same customer number and have the authority to also act on behalf of the Applicant for the above matter:

Alfred Macchione	Reg. No. 40,333 (undersigned attorney)
Robert Nakano	Reg. No. 46,498
Brian Gray	Reg. No. 30,017
Kenneth Bousfield	Reg. No. 40,460
Christopher Hunter	Reg. No. 52,528

123081-339652

TDO-RED #8237275 v. 1

Application No. 09/663,793

Reply to Office Action of January 16, 2004

- 26 -

Undersigned attorney also advises that the attorney reference number has been changed to:

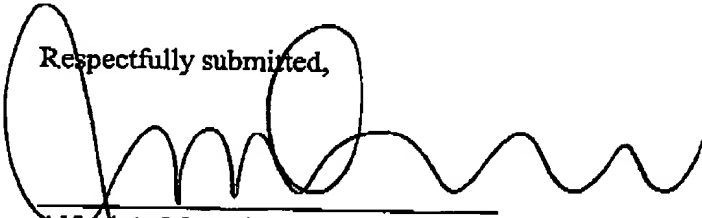
Atty's Docket No.: T01215-0038-US (123081-339652) .

Applicant requests that the USPTO update its records for this application accordingly.

In view of each of the amendments and comments herein, Applicant submits that the claims as provided herein and the application is in condition for allowance and that all rejections are traversed. As such, Applicant earnestly solicits that this application be permitted to proceed to allowance. The Examiner is invited to contact the undersigned by telephone to discuss this case further, if necessary.

July 16, 2004
Date

Respectfully submitted,


Alfred A. Macchione
(Registration No. 40,333)

McCarthy Tétrault LLP
Box 48, Suite 4700
66 Wellington Street West
Toronto Dominion Bank Tower
Toronto, Ontario M5K 1E6 Canada

Telephone: (416) 601-7729
Facsimile: (416) 868-0673

123081-339652
TDO-RED #8237275 v. 1